Quality Control

Work Ord <i>May-13-13 1:0</i>		01575		*101	1575*						P 11 11 A AMERICA	Page 1	
Item ID: Revision ID:	D3943-5			Accept	*N900	040	100)* 5	Setup (Start Stop		S1*	
Item Name: Start Date: Required Date Reference:	5/08/13	Start Qty: 10.00 Req'd Qty: 10.00	*10* *10*	,	Cust Item I Customer:	D:		·		·	"IN:	S2*	
Approvals:		lan: MC5	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			nte:		I	•	Start Stop		R1* R2*	
Sequence ID/ Work Center	ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code,	Accept Qty	Rejec Qty		Reject Number	Insp. Stamp	
Draw Nbr	Re	evision Nbr											
D3943	E												
*100 *100* Waterjet FLOW CNC Wate		Memo I-Cut as per Dwg Rev:_ Prog Rev:_	Dwg D3943	0.00				- 11	_ 7	2		JMB-	5-3
		2-Deburr if											•
110		QC2- Inspect parts off m	achine FAI/FAIB	0.00									
*11 0 *		Memo		0.00				Jr	_ ک_			Jm13-	S-3

NCR:	Yes 7 No

WORK ORDER NON-CONFORMANCE / UPDATE

1/	
DQA: Date: 13/06	107
	l
QA Closed: Date: 13 6	(a

Work Order:	16	15 7			DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	, () (
Part No.		3 /2 /2		43-5 	Rework Scrap Use-as-is Work Order Update		ı	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet od. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					ption of work order update	ł	nitial		tion	Sign &		
Cause	Date	Step	Qty	(or Non-conformance	-	ef Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved	13/54/4	/30	1	5/8 not	-11 nc THEAD + good OTY D Detur not GUDD enough	83	AS 16 2012 10410	TRHEad of machine, be done sono po	done by should of by hand dostu	13/06/04	B-6-4	13/66/0CC
			-		Your Barry F	AUL1	CATE	GORY	D			
Landing	Gear				General			A 1	46, /-	- 7 ·	_	7
	Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspectio Ripples in	Crimped at n Strip in		o/s	Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		•	on Incomplete (ions Incomplete/inance		Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V Power Loss/	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	Torque V			n L	Drawing	\vdash		Calibration				
	Turning S	equence			Finish	Ш	Out of S	equence				
	Wave/Tw	ist in Tul	be		Folio		Outside	Dimensions				·

101575

Page 2

May-13-13 1:09:01 PM

Required Date: 5/24/13

Item ID:

D3943-5

Accept

N900040100

Setup Start

Stop

Revision ID:

Item Name: **Start Date:**

Plate 5/08/13

Start Oty: 10.00 Req'd Qty: 10.00

10 *10*

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date: _____

Tooling:

Date:

Start

QC:

Operation

Description

Date: _____ SPC (Y/N):

Date:

MUP 13/06/04

Stop

Work Center ID

120

QC8- Inspect parts - second check

Set Up/ **Run Hours** 0.00

Tool ID

Tool # Plan Code

Accept Qty

Run

Reject

Qty

Reject Number Stamp

Insp.

120

Sequence ID/

QC

Memo

0.00

Quality Control

130

130

Mill Conv

Conventional Milling Machine

Memo

Manufacture as per dwg

0.00

0.00

1-OPEN TO TAP DRILL SIZE FOR 5/8" THREAD

2-DRILL TAP 1/4"-28 AS PER DWG

3-MILL RAD

QC5- Inspect part completeness to step on W/O

140

140 OC

Memo

0.00

Ouality Control

										DQA:	Date:	
NCR: Yes	/ No				WORK ORDER NON-	CON	FORM	MANCE / UI	PDATE	QA Closed:	Date:	
Work Order:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part No.					Rework Scrap Use-as-is Work Order Update		I Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Descri	ption of work order update	In	itial	A	ction	Sign &		
Cause	Date	Step	Qty	•	or Non-conformance	Chi	ef Eng	Des	cription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved												

nding	Gear	General	 _	 -	
	Bending	Bend	Grain	Ovalized	Pressure/Forced
	Centre Not Concentric to O/S	BOM/Route	Hardware	Over/Under tolerance	Temperature/Cure
	Cracks	Broken/Damaged	Inspection Incomplete	Part Incorrect	Weld
Γ	Crushed/Crimped	Burrs	Instructions Incomplete/Unclear	Part Lost/Missing	Wrong Stock Pulled
	Cuffs	Contamination	Maintenance	Part Moved	
	Heat Treat	Countersink	Mislabeled	Positioned Wrong	
	Inspection Strip in Tube	Cut Too Short	Misread	Power Loss/Surge	Other
	Ripples in Bend	Drill Holes	Offset		
	Torque Waves in Extrusion	Drawing	Out of Calibration		
	Turning Sequence	Finish	Out of Sequence		
	Wave/Twist in Tube	Folio	Outside Dimensions		

FAULT CATEGORY

101575

Page 3

May-13-13 1:09	9:01 PM									
Item ID: Revision ID:	D3943-5		A	ccept	*N900	0401	೧ ೧*	Setup	Start Stop	*NS1*
Item Name: Start Date: Required Date: Reference:	Plate 5/08/13 5/24/13	Start Qty: 10.00 Req'd Qty: 10.00	*10* *10*	•	Cust Item I Customer:	D:				*NS2*
Approvals:	Process Pla	nn:	Date:	Tooling: SPC (Y/N):		ate:		Run	Start Stop	*NR1* *NR2*
Sequence ID/ Work Center II 150 *150* Packaging Packaging	D	Operation Description Identify as per dwg & Stoc	k Location: <u> 5 7</u> 7 <i>5</i>	Set Up/ Run Hours 0.00	Tool ID		an Accepted ode Oty	ot Rej Qty	/ I	Reject Insp. Number Stamp
160 *160* QC Quality Control		QC21- Final Inspection - V	Work Order Release	0.00				MU	- \3	-ap-05

											DQA.	Date.	
NCR:	⁄es	/ No				WORK ORDER NON-C	O	NFOR	MANCE / UP	DATE	QA Closed:	 Date:	
			· ····			DISPOSITION				AGAINST DE	 -		
Work Orde Part I	- No			· ·		Rework Scrap Use-as-is Work Order Update			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update	I	nitial	Ac	tion	Sign &		
Cause	Ì	Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data			•				1						
Equip/Tooling	П											·	
Operator													
Material							1	•					
Setup	П	,							·				
Other	П	į		ļ									
Process	П						İ		·			,	
Supplier	П												
Training												·	
Unapproved	П			İ								i j	
						F	AUL	T CATE	GORY				
Landi	ng G	ear				General		_			_	<u></u>	=
	[]	Bending			· [Bend		Grain			Ovalized		Pressure/Forced
		Centre No	ot Conce	ntric to	o/s	BOM/Route		Hardwa	ire		Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged		Inspect	ion Incomplete		Part Incorred	ct	Weld
		Crushed/	Crimped			Burrs		Instruct	tions Incomplete/	'Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	П	Cuffs				Contamination		Mainte	enance		Part Moved		
j	П.	Hoat Troa	+			Countersink		Miclahe	alad		Positioned V	Vrong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Other

Power Loss/Surge

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

May-13-13 1:09:01 PM

Work Order ID:

101575

Parent Item:

D3943-5

Parent Item Name:

Plate

Start Date: 5/08/13

Required Date: 5/24/13

Start Qty: 10.00

Required Qty: 10.00

Comments:

Est Rev:A New Issue 09-06-03 JLM Verified By:EC IPP Rev:B as per dwg REV.C DD 10.02.22 verified by:EC IPP REV:C 11.08.16 AS PER REV E DD VERF-II M

	10.02.22 vermed	by.ec if	PREVIC I	1.06.10 AS	PER REV.E DD	VERT.JL	, IVI							
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status	
M1010B0.375X03.500	5 x 3 500	Purchased	No			100	f	0.0000	0.13	1-3684211			Jniss	3

F21551

F21551

NCR:	Yes	1	No

Date:

DQA:

NCR: Ye	es / No				WORK ORDER NON-O	CONFO	RM	IANCE / UPI	DATE			
	•									QA Closed:	Date	2:
Work Orde	ř:				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N	0.				Rework Scrap			Skid-tube 1 1achining	Crosstube Small Fab	Pro	Water Jet d. Eng. Coor.	Engineering Quality
NCR N	0				Use-as-is Work Order Update	Th		oforming arge Fab	Finishing Composite	Rec/Sto	re/Packaging Supplier	Other
Root				Descri	ption of work order update	Initia	1	Act	tion	Sign &		
Cause	Date	Step	Qty	•	or Non-conformance	Chief E	ng	Descr	ription	Date	Verification	QC Inspector
oc/Data												
quip/Tooling						ł						
perator		1										
/laterial	_						1					
etup	_											
Other	_					ł						
rocess												-
upplier								•			:	
raining		1	,									
Inapproved		<u> </u>								<u> </u>		
						AULT CA	TEG	ORY				
Landin	g Gear			_	General				Γ	7	Γ-	- , .
	Bending				Bend	Gra			<u> </u>	Ovalized	ļ	Pressure/Forced
	Centre N	ot Conce	ntric to (o/s	BOM/Route	\vdash	dwar		ļ	Over/Under	<u> </u>	Temperature/Cure
	Cracks			<u> </u>	Broken/Damaged	\mathbf{H}		n Incomplete		Part Incorre		Weld
	Crushed/	'Crimped			Burrs	<u> </u>		ons Incomplete/U	Jnclear	Part Lost/Mi	ssing	Wrong Stock Pulled
L	Cuffs			<u> </u>	Contamination	\vdash		nance	<u> </u>	Part Moved		
	Heat Tre	at			Countersink	Misl	labele	ed		Positioned V		-
	Inspection	n Strip in	Tube		Cut Too Short	Misr			<u> </u>	Power Loss/	Surge	Other
	Ripples ii	n Bend			Drill Holes	Offs	et					
	Torque V	Vaves in E	xtrusio	n [_	Drawing	Out	of Ca	alibration				
	Turning S	Sequence			Finish	Out	of Se	equence				
	Wave/Tv	vist in Tul	ре		Folio	Out	side l	Dimensions				

DART AEROSPACE LTD	Work Order:	101575
Description: Plate	Part Number:	D3943-5
Inspection Dwg: D3943 Rev: E		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing	Tolerance	Actual	Accept	Reject	Method of	Comments	
Dimension		Dimension	Мосор	110,000	Inspection	Comments	
0.75	+/-0.030	0.754° 1.502° 1.136°	-		V	ThmoI	
1.50	+/-0.030	1.205.	-		V	V	
1.13	+/-0.030	1.136"	_		V		
2.25	+/-0.030	J.523,	_		V		
~ 0.19	+/-0.030				ν		
0.38	+/-0.030	0.369	-		V		
~ R0.25	+/-0.030						
-							
				a			
						·	
				<u>.</u>			
		1					

Measured by:	J _M	Audited by:	Preliminary Approval:	
Date:	13-5-31	Date: 13-5-31	Date:	

Rev	Date	Change	Revised by	Approved
Α	09.06.11	New Issue	KJ JA	
В	12.05.15	Dimensions updated per Dwg Rev E	KJ 👭	Link

							· '	Ü
	ITEM No.	QTY -041	QTY -051	QTY -053	PART NUMBER	DESCRIPTION	PREFERED SUPPLIER	
	1	×			D3943-041	GROUND HANDLING CRANK ASSEMBLY		1
	5	1	X		D3943-051	HANDLE ASSEMBLY		
	6	1		×	D3943-053	CHAIN ASSEMBLY		1
								1
D	11		1		D3943-1	HANDLE	M/F HANDLE FROM DIS-ASSEMBLED ITEM 39	1 .
	12	1			D3943-3	HANDLE EXTENSION		1 /€\
	13		1		D3943-5	PLATE		1/ } `
	14		2		D3943-7	STUD		
	15			1	D3943-9	CHAIN	USE CHAIN SUPPLIED WITH ITEM 39	1
	16			1	D4405-1	EYE AND FORK SWIVEL		1
_								7
	21	1			D2690-4	LANYARD		
	22	1			D3585-1	SET SCREW		· ·
	23	1		L	D3949-041	REMOVE BEFORE FLIGHT FLAG		7
	24			1	D3954-5	CHAIN LUG		7
ĺ	25	1			D3954-7	RATCHET LUG		1
_	26			1	D3954-9	GWT CHAIN PIN		
C]
	31	1			AN5-11A	BOLT		
i	32	1			AN960-516	WASHER		
	33	1			MS21042L5	NUT		
					-			J
ļ	39	1			8143919	LEVER CHAIN HOIST (POWER FIST)	PRINCESS AUTO / 4000 lbs CAPACITY	_
								_
	51	1			S-1475	SPRING	REID SUPPLY	
	52				3408A59	BALL PLUNGER	McMASTER CARR	4
	53	1			HX-15	SOCKET HEAD CAP SCREW -20 UNC X 0.75 LG		4
ı	54	1			HX-16	SOCKET HEAD CAP SCREW 4-20 UNC X 1.0 LG	HASKINS	ل

UNCO, SUMMED

101575 MCS 13-05-15

£	"NONE	(A7-5	; TAP D	IATL TO SS (B8-5); FINISH NOW RILL FOR 1/4-20 UNF-2B WAS 11-5). PER PAR11-113.	МВ	11.07.27
D	SHT 1 FOR D SHT 2. Ø0.12 I	ETAILS ZN D3 I	AJS	11.05.16		
C	-1/-3 (A	B-3/-4/-	5), ADD	A8-2), ADD NEW FINISH -051/-053/ CALIBRATION (A8-2), (1) HX-16 -1), PAR 10-001	СР	10.01.26
8	AN960- 0.75 LG	416, IT 6. SHEE	EM 33 V ETS 2 - 5	AS AN4-10A, ITEM 32 WAS VAS MS21042-4, ITEM 43 WAS 5 NOTES: FINISH FOR ALL YELLOW SPRAY PAINT.	AJS	09.10,15
Α	NEW ISSUE				AJS	09.05.13
REV.			D	ESCRIPTION	BY	DATE
DESIGN DSTOW/AJS			V/AJS	DART AEROSP	ACE	LTD
DRAWN		, ,	HAWKESBURY, ONTARIO, CANADA			
CHECKED		A	55/	DRAWING NO.		REV. E
MFG. APPR.		2		D3943	s	HEET 1 OF 5
APPROVED		W	Y	TITLE		SCALE
DE APPR. N/A		/Α	GROSS WEIGHT TOW CRANK ASSY NTS			
DATE 11.07.27				COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DODAMENT IS PRINTED ON THE EXPRESS CONSTITUTING NOT TO BE USED FOR ANY IMPOSED OR COPE DO COMMENCE TO ANY OTHER PERSON WITHOUT WRITTEN PERRESION FROM DART AEROSPACE LTD		

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